

(positive or negative) and any other force—epinasty, hyponasty, positive or negative heliotropism,—it is clear that, geotropism being destroyed by the rotation, the balance cannot be maintained." The experiments, varied in many ways, and with arrangements to eliminate epinastic and hyponastic tendencies, plainly bring out the conclusion "that the power which leaves have of placing themselves at right-angles to the incident light is due to a specialized sensitiveness to light, which is able to regulate or govern the action of other external forces, such as gravitation, or of internal forces, such as epinasty."—A. G. in *Am. Jour. Sci.*

**Ranunculus.**—I invite attention, this season, to the various forms which in this country pass under the name of *Ranunculus repens*, L. I suspect that the European species, one which merits the specific name, is not indigenous to the United States, but is occasionally met with as a naturalized plant. The "third form" with "spotted leaves," mentioned in Mr. Ward's new Flora of Washington, would seem to be of this species. Does the low and early-flowering form of our common species make runners later in the season? And do the larger forms of low ground freely produce prostrate shoots and do these take roots?"—A. GRAY.

**Botanizing on Comanche's Peak, Texas.**—This high bluff is one of the most remarkable features of Central Texas. Situated six miles south of Granbury, it towers above the beautiful valley of the Brazos like an immense citadel, its height above the valley being estimated at six hundred feet. It is seen from long distances in every direction and from its top a most extensive view is obtained. Like an isolated sentinel, it seems to be the only remnant of a vast plateau that has been washed away. Belonging to the Cretaceous Period, its rocks full of interesting marine fossils have characterized one group of that period, bearing the name of *Comanche's Peak Group*.

In September, 1881, my wife and I visited the peak on a botanizing expedition, but the season was not favorable except for a few grasses which I will mention below. The *Euphorbia Fendleri* and *Paronychia Jamesii* were the only interesting plants in bloom. On the rocks which had fallen from the top of the peak we noticed some *Solidago nemoralis* in bud, but most of the species were detected by means of leaves, or dried stems bearing seeds; such as *Arenaria Michauxii*, *Erythraea Texensis*, *E. Beyrichii*, and *Sabbatia campestris*. We looked eagerly for ferns, but only two were obtained. *Pellaea atropurpurea* and *Notholaena dealbata*, of the latter only a small specimen. The pretty *Cereus pectinatus* is also growing there, being, I think, one of its more northeastern stations.

The grasses were; 1, a *Bouteloua* much resembling *oligostachya* but with culms 2 or 3 feet high and that in poor rocky soil; 2, *Leptostachya dubia*; 3, *Tricuspis* (probably *mutica* of Torrey); 4,